





RRS SUMMER SERIES

PLUS: MARKET INSIGHTS

COMPANIES TO WATCH

NOVEMBER 2022



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INTRODUCTION

Welcome investors

Drive your own portfolio with high-quality resource sector opportunities direct from key performers

NICHOLAS READ

On behalf of our team at Read Corporate, we are pleased to welcome you to our 2022 Resources Rising Stars Summer Series, which returns this year to Sydney and Melbourne with a stellar lineup of 25 mining and exploration company CEOs.

The RRS Summer Series is a spin-off of our highly successful Resources Rising Stars Gold Coast Conference, which has been running for the past 20 years.

RRS is all about empowering retail investors by giving them an unparalleled opportunity to meet directly with the management of the companies they invest in, to do their own research and to make their own judgements – unfiltered by the opinions and analysis of others.

Diligent research and considered stock-picking are amongst the best tools that any investor can apply, particularly in a rapidly changing environment such as we have seen this year where a rising tide no longer lifts all boats.

This year, we are excited to feature some of Australia's most seasoned and best-performing mining leaders – Steve Parsons, Dale Henderson, Ken Brinsden, George Bauk, David Richards, Simon Lill, Paul Lock, Brendan Bradley, Michael Naylor and Darren Cooke amongst others, plus a number of up-andcoming junior company CEOs.

The one-day events will also give investors exposure to a wide range of commodities – ranging from the booming lithium sector to other metals that are highly leveraged to the global decarbonisation thematic like copper, zinc and rare earths.

The resurgent gold sector is also well represented at both the junior and mid-tier end of the spectrum.

A big thank you to all the participating companies for supporting RRS and helping us to continue to build and connect with our investor network on the east coast.

We would also like to take this opportunity to thank our keynote speaker, Grady Wulff, Market Analyst at Bell Direct, and the entire Bell Direct team for supporting the RRS Summer Series.

Our sincere thanks also to our event media partner, Stockhead, and Kristie Batten, the editor of leading mining industry news source Miningnews.net and Kerry Stevenson from Symposium for taking time to join the Summer Series and chair a number of sessions.





"Diligent research and considered stock-picking are the best tools any investor can apply, particularly in a rapidly changing environment where a rising tide no longer lifts all boats."



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This Event Guide can be viewed on desktop, tablet and mobile at the above address, where you'll find an archive of investor content.

CONFERENCE DETAILS

Location and Dates

Sydney, 29 November 2022 Four Seasons Hotel, 199 George St

Melbourne, 1 December 2022 Sofitel Melbourne, 25 Collins St

Webinar, 1 December 2022

Register

www.resourcesrisingstars.com.au/events

DISTRIBUTION PARTNER



MARKET INSIGHTS

Lithium: no longer the only game in town

From a party of one to a party of many







BARRY FITZGERALD

The improving economic outlook has fired up investor interest in the ASX junior mining and exploration space beyond the ongoing love affair with lithium stocks.

Lithium stocks continue to command most of the attention as a result of prices for the key battery material shaking off global economic concerns and China's COVID lockdowns to keep rising throughout the year.

While the lithium boom rolled on in response to the take-off in electric vehicle sales, the rest of the mining industry was left to deal with crumbling commodity prices, cost pressures and labour shortages.

As a result, investors turned their backs on junior miners and explorers, unless their story was plugged into the lithium thematic.

But now investor interest has grown beyond the lithium sector in response to the early November indications that the most aggressive interest rate hiking cycle in modern history could be coming to an end.

The resultant fall in the US dollar has commodity prices on the march again, with indications that China is relaxing its COVID protocols in support of increased economic activity adding to the improved outlook.

The potential turning point in the interest rate cycle has been particularly telling on the gold price. Rising interest rates are the nonyielding metal's worst enemy.

So it was no surprise that gold retreated for seven consecutive months through to October when the price got as low as \$US1630/oz. While scores of gold explorers have switched their focus to lithium, gold exploration still remains the main activity of the junior sector.

Those that did not have a lithium leg to call on saw their equity values trashed. But gold's rebound in early November to more \$USI750/oz on receding interest rate pressures has reinvigorated the ASX gold sector.

Share price gains for the gold miners, developers and explorers alike, were almost lithium-like in the first half of November due to the strong recovery in the gold price.

Gold remains well short of the plus \$US2000/oz level of early March but analysts at leading investment banks believe conditions are now conducive to the price pushing higher.

After recently noting that 2022 had been a "disaster" for gold equities, UBS is forecasting gold could rise to \$US1900/oz by the end of next year. Canaccord's long-term price assumption is \$US1922/oz.

Those expectations have fed into renewed buying support for gold stocks.

That was reflected in industry leader Newcrest posting a 15% share price gain in the first half of November, while mine developer Bellevue and explorer E79 Gold Mines gained 18% and 24% respectively.

The gains were off low bases, such was the sell-off in the sector when gold appeared to be in a death spiral. Still, resource specialists like Perth's Argonaut found an opportunity created by the sell-off.

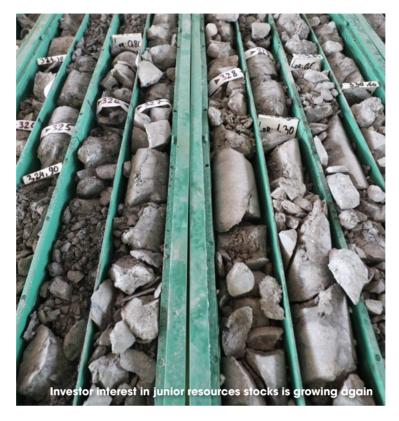
It recently launched the Argonaut Australian Gold Fund and has reported "very strong demand" for the first \$5 million of what could end up being a \$50 million fund. It said the strong demand recognised that Australian gold equities had "substantially underperformed physical gold and the broader

"While scores of gold explorers have switched focus to lithium, gold exploration remains the main activity of the junior sector"

resource market, given rise to this unique opportunity".

Importantly for junior explorers, the rebound in the gold price and the return of investor interest in the sector means that worthy exploration programs will again enjoy equity support.

As it is, the junior space across all commodities has managed to build cash reserves despite the pressure on gold and other ex-lithium commodities hampering their ability to raise fresh funding.



Lithium has been a star penormer in 2022

A survey by industry consultant MinEx of 360 juniors found that cash reserves rose 14% in the last 12 months. A pullback in exploration because of the slump in non-lithium commodities was likely the main cause.

Despite the strong buying of gold equities in response to gold's recovery, Macquarie and others are warning that there are challenges to it lasting.

It said in mid-November that the ability of the US Federal Reserve to "sustainably return inflation to target remains key to the outlook for precious metals".

"Although there are signs of goods

disinflation, a further deterioration in the labour market will likely be required to rein in core services inflation," Macquarie warned.

"Indeed, beyond knee-jerk reactions to the October CPI reading, a decline in inflation should now be bearish for gold, as it would be a step towards Chair Powell's stated aim of positive real rates across the yield curve."

While the nuances of gold's price setting are worked through, the mining market has also been buoyed by China easing its COVID rules. Base metal prices which were already been carried higher in response to the lower US inflation figures, have been given another push along.

By mid-November, the bellwether copper price had risen to its highest level since June, albeit to a level still well short of its peak in March.

The copper price faces a challenge of rising production in the near-term due to new mine completions and expansions at existing mines. But the mega-trend of global decarbonisation through electrification remains intact, with BHP forecasting a "take-off" in demand in 2025.

LITHIUM

There is no better example of the scale of the lithium boom than the growth in market capitalisation of Pilbara Minerals.

Starting from January 2021 when lithium prices began to stir, Pilbara's market cap has grown from \$2.5 billion to more than \$16 billion.

The exceptional growth in value has been repeated at other leading ASX-listed lithium producers, and has led to an explosion in the number of junior exploration companies now searching for the key battery material.

The burning question for investors now is can the boom last? This subject is set to be chewed over at the two legs of the Resources Rising Stars conference in Sydney (November 29) and Melbourne (December 1).

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MARKET INSIGHTS

The other 'must-have' decarbonisation minerals

Star stock of 2022, lithium is not the only commodity set to benefit from sweeping global change





JACK MCGINN

The astronomical price performance of lithium has been the investment story of 2022, as the world searches for logical answers to a green future question that's becoming ever more critical.

Lithium, the commodity after which the lithium-ion battery is named, was an obvious candidate for immediate price growth. And grow it did.

Benchmark Mineral Intelligence's Lithium Index, which tracks the commodity's price performance, shows prices have increased around 140% over the year to date.

ASX-listed lithium plays
– especially those near or in
production – logically followed suit.
Explorers with even a sniff continue
to occupy watchlist space for many
investors.

The forecasts generally predict more great times ahead for lithium, as the world accelerates its EV future.

But just as it will take a global village to make good on a Net Zero future, it'll take a whole gamut of minerals to build the technology needed to deliver and power the dream.

Here's a handful to keep an eye on.

Nickel

Brazilian mining behemoth Vale turned heads in September when it

predicted a 44% increase in global nickel demand from 2022 through 2030, driven by EV demand.

Closer to home, BHP said in November that it saw up to a four-fold demand increase by 2050 – big news for local explorers, given the Big Australian's nickel operations centre on long-established Western Australian assets in the Northern Goldfields.

BHP plans to spend \$140 million on brownfield nickel exploration in WA's Agnew-Wiluna greenstone belt over the next two years, and more in 2022 than any prior year.

It seems to be a good time to be exploring for nickel.

Copper

The red metal's price performance is often referred to as an economic bellwether, but copper is expected to be fundamental to the tech of tomorrow.

EVs, solar panels, wind turbines, and just about everything else – copper's unparalleled conductive attributes have led to dire shortfall warnings from firms including S&P Global, Wood Mackenzie and Goldman Sachs.

The positive for explorers? New supply appears to be the only antidote to BHP's forecast "take-off" in prices from 2025.

There's also a consolidation narrative to this metal's story arc. BHP's ongoing interest in producer OZ Minerals, which most recently resulted in a \$9.6 billion offer for the latter which was endorsed by the OZL board, suggests the hunger is deep and high-grade.

Manganese

Not unlike cobalt and rare earths, Benchmark Mineral Intelligence this week highlighted manganese for its potential to be the world's next supply chain headache.

Benchmark pointed out that while China mines just 6% of manganese globally, in 2019 it produced 93% of the world's chemically refined manganese.

That creates a supply chain headache, but an opportunity for those able to find and refine the materials in a global ecosystem where security of supply is paramount.

Graphite

Lithium-ion batteries are expected to become the primary driver of demand for graphite next year, with no alternative available to the material required for EV anodes.

Graphite is the largest component by weight in the typical composition of the EV battery,

"The red metal's price performance is often referred to as an economic bellwether, but copper is expected to be fundamental to the tech of tomorrow"

accounting for 28.1% of the makeup – ~52kg per car – according to the European Federation for Transport and Environment.

Compounding the equation for graphite developers is a lack of production outside China – those who can bridge the gap look set to capitalise.

Zinc, lead and silver, platinum group elements, cobalt and many more – the list goes on. As the world's mineral requirements change, so too will the fortunes of those who search out and develop the mines of the future.

Rare earths rise as ASX aspirants take off

The companies poised to prosper from the market's new appetite for supply diversity and expansion



PETER STRACHAN

The number of ASX-listed explorers and project developers focused on rare earth elements (REE) has jumped from just a handful in 2019 to more than 46 companies in 2022. REEs, a group of elements which are increasingly applied to high technology and renewable energy end-uses, have captured market attention and provided access to funding for companies with that focus.

There are two main drivers for this. Firstly, the electrification of everything from automobiles to stoves, combined with expansion of wind and solar power generation, rapidly expands demand for REEs. Secondly, consolidation of REE supply out of China, which controls 80% of the global market, comes with obvious risks to supply over the longer term. Expansion, along with diversification of supply, has become the mantra.

The metallurgy around processing REEs is complex. Iluka (ASX:ILU), which is building an integrated REE business around by-products from its mineral sands near Geraldton, has warned new entrants to think about bringing intermediate products to its refinery, rather than risk the years of pain that Lynas Rare Earths

(ASX:LYC) had to suffer to get its operation into the black. Lynas, which mines the massive, very highgrade Mt Weld carbonate deposit, passed through the valley of death from 2012 until 2020. Its share price fell to 33 cents in 2015, a far cry from more recent heights of \$11.39 per share in April '22!

Encouragingly, REE pricing has boomed since 2020. The price of neodymium/praseodymium oxide (Nd/Pr) was US\$36/kg in the December quarter of 2020, rising to US\$139/kg in the March quarter of 2022 before settling at US\$78/kg through September 2022. Likewise, dysprosium oxide rose from US\$202/ kg during the December quarter of 2020, peaking at US\$420/kg in the 2022 March quarter before settling at US\$278/kg through September 2022. Terbium rose from US\$440/ kg to a high of US\$1950/kg and has recently settled at US\$1600/kg.

There are two main geological types of REE deposit. Carbonite-hosted monazite deposits, like Mt Weld, Hasting Technology Metals' (ASX:HAS) Yangibana, Arafura Rare Earths' (ASX:ARU) Nolans as well as Dreadnought Resources' (ASX:DRE) Yin and RareX's (ASX:REE) Cummins Range deposits spun a selection of hard rock occurrences that may also hold by or co-

product phosphate. These deposits have shown themselves to be well adapted to ore-sorting technology that upgrades plant feed to lower operating costs and improves the value of projects as they come onstream from 2024 through to the end of the decade.

More recent attention has focused on seemingly abundant, shallow, sedimentary, or chemically emplaced ionic clay hosted REEs, similar in style to most Chinese mines. Progress on low-grade ionic clay hosted REEs is at an early stage. Metallurgical testing and design of an environmentally robust processing route has yet to be tested. Some care needs to be exercised around risks associated with the ESG component of these projects, as it does with any extraction project.

The REE value-adding chain is a complex, industrial minerals business that ends in metalised elements. Entrance is not as easy as making gold bullion or copper concentrate or even refined copper cathode. Early entrant Australian Strategic Materials (ASX:ASM), which spun out of Alkane, has started by applying its intellectual property in downstream refining and metal processing that will eventually add product from its Dubbo deposit. Likewise, Hastings



"The number of ASX-listed explorers focused on rare earth elements has jumped from just a handful in 2019 to more than 46 companies in 2022"

has added downstream value adding prior to commissioning Yangibana, taking a synergistic 24% stake in Canadian-listed downstream rare earth processor Neo Performance Materials.

REE oxides		Dec Q '20	March Q '22	Sept 0 '22
Nd/Pr	US\$/kg	\$ 36	\$ 139	\$ 78
Dy	US\$/kg	\$ 202	\$ 420	\$ 278
Tb	US\$/kg	\$ 440	\$ 1,950	\$ 1,600

Figure 1: Prices as reported by Lynas Rare Earths in quarterly reports to ASX.

FEATURED COMPANIES

As global supply-demand paradigms shift to meet the needs of a greener world, those informed on rising companies and commodities stand to make solid gains. Meet the next generation of resources stars digging deep to shore up our future.





ROB SENNITT
MANAGING DIRECTOR

ALICANTO MINERALS

(ASX:AQI)

■ Company Name: Alicanto Minerals

■ Company ASX code: AQI

■ Key Commodities: Copper, gold, zinc,

lead, silver

■ Key Personnel: Ray Shorrocks,

Non-Executive Chairman | Rob Sennitt,

Managing Director

■ Locations: Sweden

■ Market Cap as of 15/11/22: \$22.69M

■ 52 Week Share Price Range at 15/11/22:

\$0.030 - \$0.150

■ Company Website:

www.alicantominerals.com.au

COMPANY PROFILE

Alicanto Minerals is accelerating its exploration effort in the mining-centric and resource-rich Bergslagen region of Sweden as it works to unlock additional resources at past-producing mines that have been massively underexplored despite their substantial mineral potential.

The company's portfolio comprises the Sala mine, previously one of the largest and highest-grade silver operations in Europe, and the Falun mine, which for centuries was the largest supplier of copper in the western world.

Before its closure in 1908, the Sala mine produced 200 million ounces of silver at an average grade of 1244 grams per tonne (g/t) and up to an eye watering 7000g/t. For context, that's about 140x the base line 50g/t the industry generally considers high-grade.

In July 2022, Alicanto delivered a maiden inferred resource of 9.7Mt at 4.5% zinc equivalent for the Sala project, cementing it as Sweden's largest undeveloped zinc and silver deposit and confirming the immense scope for growth, with the system remaining open along strike and at depth.

Importantly, the resource includes a high-grade core from surface of 4.5Mt at 6% zinc equivalent.

The Falun mine, meanwhile, closed in 1992 having produced 28Mt at 4% copper, 4g/t gold, 5% zinc, 2% lead and 35g/t silver.

Alicanto agreed to acquire the worldclass mine in early November 2022 to complement its existing Greater Falun project and give the company control over 60km of the target mineralised zone.

"There has been no exploration of any note at Falun since it closed in 1992 amid low commodity prices, meaning there is substantial upside," Rob Sennitt, Alicanto managing director, said.

"The strength of the opportunity is also demonstrated by Falun's location along strike from our Greater Falun project, where we have just intersected visible zinc, copper, and silver in the first hole at the new Skyttgruvan-Naverberg target.

"This result builds on our thesis that the Greater Falun project is part of a major mineralised belt that includes the historic Falun mine."

The Bergslagen region is home to some of the largest polymetallic deposits globally and has extensive infrastructure in place but remains relatively underexplored.

AQI is taking full advantage of the underexplored nature with an aggressive drilling program underway focusing on new high-grade silver discoveries and resource expansion at Sala.

The company is also conducting the first modern systematic exploration of the prospective stratigraphy to the west of the Falun mine.

Highly successful drilling campaigns have generated numerous high priority targets for Alicanto to follow up.

AQI is backed by a team with a proven track record of brownfields development and extensive in-country experience, led by the former chief geologist of Swedish multinational producer Boliden, Erik Lundstam, who has made seven major discoveries in Sweden.



- Alicanto has two 100%-owned brownfield projects with significant historical production, high prospectivity and limited exploration in the mining region of Bergslagen, Sweden.
- AQI is backed by a team with a track record of brownfields development and extensive in-country expertise.
- Alicanto is highly leveraged to exploration success with an accelerated drilling program underway aimed at expanding the Sala project resource.



RICK POBJOY
ACTING MANAGING DIRECTOR

AUSTRALIAN RARE EARTHS

(ASX:AR3)

■ Company Name: Australian Rare Earths

■ Company ASX code: AR3

■ Key Commodities: Rare earths

■ Key Personnel: Dudley Kingsnorth, Chairman | Rick Pobjoy, Acting Managing Director | Bryn Jones, Co-founder & Non-Executive Director

■ Locations: South Australia

■ Market Cap as of 15/11/22: \$50.18M

■ 52 Week Share Price Range at 15/11/22:

\$0.300 - \$1.220

■ Company Website: www.ar3.com.au

COMPANY PROFILE

Australian Rare Earths is taking major steps towards establishing a globally significant, long-life business that can leverage the accelerating need for minerals critical to clean energy.

Demand for rare earths is expected to double by 2030 as global electric vehicle and turbine markets grow. Strong demand fundamentals are furthered by governments keen to create supply chains that will reduce their current heavy reliance on China.

At its flagship South Australian Koppamurra project, AR3 has topped off a highly successful year in which the JORC mineral resource estimate increased by 104% to 81.4Mt, with 50% in the highest confidence indicated resource category.

Since that news from the September quarter, subsequent drilling programs have further distinguished Koppamurra as a unique business opportunity.

Results have established the potential for Koppamurra to be a shallow, low cost and generational-sized resource, with the consistent and clay-hosted nature of the deposit to facilitate rapid resource growth.

Notably, assay results continue to show the project is well endowed with the four key high-value rare earths used in magnets for electric vehicles and wind turbines - praseodymium (Pr), neodymium (Nd), and importantly the heavy rare earths dysprosium (Dy), and terbium (Tb).

The highly encouraging drilling results have opened the door for AR3 to start strategic discussions with endusers and government representatives on potential development, downstream processing, funding and off-take arrangements.

A busy exploration program will continue into early next year, with approximately 1000 samples for assay to be generated each week.

Significantly, the rare earth mineralisation at Koppamurra is in a clay layer typically less than 10m from surface and it is one of only a few clay-hosted heavy rare earth endowed deposits outside China/Myanmar.

Compared with their hard rock counterparts, clay-hosted rare earth deposits offer quick, low cost, near surface drilling in soft ground. They can also be processed with lower capex and more environmental sensitivity due to the lack of radioactive waste streams and because leaching requires only ambient,

not high temperatures or pressures.

Metallurgical test results critical to the feasibility of rare earths projects have indicated a viable processing pathway for the extraction of the highly sought-after minerals from Koppamurra ore.

Rick Pobjoy, acting AR3 managing director, said the results highlighted the project's potential.

"These are pivotal because they show magnet rare earth elements contained in the Koppamurra resource can be extracted at high recoveries," he said.

"A clear processing pathway with excellent metallurgical results has been identified and we signed a pivotal MOU which considers a joint development agreement with leading global rare earths processor, Neo Performance Materials.

"By continuing to advance key technical and commercial aspects of Koppamurra, we aim to create additional value for shareholders and strengthen our ability to capitalise on the increasing demand for our products."



- Australian Rare Earths' flagship project Koppamurra is a clay-hosted heavy rare earth deposit, meaning it can be brought into production for a fraction of the capital expenditure required for a hard rock source.
- Koppamurra is in the tier 1 development location of South Australia.
- The clay-hosted and consistent mineralisation at the project means it has a short timeline to production.



DARREN COOKE

AUTECO MINERALS

(ASX:AUT)

■ Company Name: AuTECO Minerals

■ Company ASX code: AUT ■ Key Commodities: Gold

■ Key Personnel: Darren Cooke, Chief Executive Officer | Ray Shorrocks, Chairman | Steve Parsons Non-Executive Director

■ Locations: Ontario, Canada

■ Market Cap as of 15/11/22: \$107.52M

■ 52 Week Share Price Range at 15/11/22:

\$0.035 - \$0.103

■ Company Website:

www.autecominerals.com

COMPANY PROFILE

These days the number of companies on the ASX with genuine high grade gold mines can probably be counted on two hands, if not one.

Backed by a board renowned for building ASX 200 company Bellevue Gold and led by CEO Darren Cooke, a former Northern Star geo with over 25 years of experience in the gold game, AuTECO Minerals owns the Pickle Crow mine in Canada – a project with size and grade belying a modest market cap of ~\$90 million.

Pickle Crow is located in one of the

world's best gold addresses, the 40Moz+ Uchi subprovince along the Ontario-Manitoba border. It is a stable tier 1 jurisdiction, with ready access to clean green hydro power.

Just down the road neighbouring giants Evolution Mining and Newmont own major gold deposits like Red Lake and Musselwhite.

At 2.23Moz and 7.8g/t, Pickle Crow is well on the way to joining them.

Pickle Crow's rich quartz veins delivered 1.5Moz at 16.1g/t over 31 years of historic mining. But that finished in 1966, a time when mining methods were not what they are today.

The old timers left plenty of good stuff behind, as AuTECO has displayed since its maiden 830,000oz maiden JORC resource in June 2020.

In just two years that number has almost tripled, growing 30% alone in the six months before the most recent update last December.

From September 2020 to December last year, 1.2Moz of additional ounces of resource were added at just \$17.58 per ounce from 75,000m of drilling.

An extensive 50,000m drill program is currently underway, with a still larger resource update expected next year.

Drilling deeper, 1.9Moz at a stunning 9.3g/t has been identified in the high grade, narrow veined gold historically associated with Pickle Crow, which remains open at depth.

AuTECO has also added scale by identifying 300,000oz at 3.8g/t in banded ironstone formation sulphide mineralisation, a type of gold historically mined in the Uchi province including at Newmont's 5Moz-plus Musselwhite mine.

There is plenty of opportunity to expand further, with AuTECO

controlling an entire camp-scale mineral district in its own right. In June this year AuTECO made the Talia discovery – 5.5m at 18g/t in banded iron formation-hosted mineralisation 45m from surface, lkm from the current resource.

As recently as October, AUT announced bonanza sampling results of up to 569g/t from the Metcalf project, 6km away.

At Pickle Crow resource drilling has focused on extending known veins and discovering new structures in the top 500m, but early indications suggest it has a long way to go. Deeper intersections have struck gold at Pickle Crow up to 1000m below surface.



- AuTECO owns the Pickle Crow gold mine in the 40Moz+ Uchi gold field, a high-grade deposit containing 2.23Moz at an impressive 7.8g/t.
- AUT is rapidly advancing the project, with a 50,000m drill program to finish next year ahead of another resource upgrade.
- Well funded with \$11 million cash as of September 30, and an experienced management team with a track record of success.



MICK WILSON
EXECUTIVE DIRECTOR

BELLAVISTA RESOURCES

(ASX:BVR)

■ Company Name: Bellavista Resources

■ Company ASX code: BVR

■ Key Commodities: Zinc, copper

■ Key Personnel: Mick Wilson, Executive Director | Michael Naylor, Joint Company Secretary | Maddison Cramer, Joint Company Secretary

■ Locations: Upper Gascoyne,

Western Australia

■ Market Cap as of 15/11/22: \$16.37M

■ 52 Week Share Price Range at 15/11/22:

\$0.165 - \$0.360

■ Company Website:

www.bellavistaresources.com

COMPANY PROFILE

An ASX newcomer steered by Mick Wilson, a geologist with 25 years' experience, Bellavista Resources is hot on the heels of mineralisation in its exploration of WA's upper Gascoyne.

The company is focused on drilling at its Edmund Basin project area near Galena Mining's Abra lead-zinc deposit, in search of a bevy of minerals including zinc, silver, uranium, nickel, copper and platinum group elements.

Led by Wilson, who previously helmed Helix Resources, the mineral search is in good hands. Exploration manager Natalia Brunacci is a geologist with 15 years' experience, including at Bellevue Gold, whose eponymous gold project is set to be one of the highest-grade and lowest-cost gold mines in the country.

An oversubscribed May IPO raised \$6.5 million, and Bellavista hasn't dawdled in putting it to good use. BVR has a number of campaigns planned but focused first on its zinc-copper-silver Brumby project, in the eastern-most licence area of its Edmund Basin project area.

Management is confident Brumby, which sits just 60km north of Abra, is highly prospective for sedimentary exhalative (SEDEX) base metal deposits, including zinc and lead, as well as copper and silver. Much of the world's lead and zinc production comes from SEDEX deposits.

Based on consistent assay results from historical exploration drilling across Brumby, the company believes the scale of the deposit could make it a giant or a super-giant SEDEX deposit - in the league of iconic Australian mines Mount Isa, McArthur River and Century.

Exploration at Brumby began in July courtesy of seven diamond holes and four reverse circulation holes. The initial phase aimed to extend the Brumby strike outwards from historical drilling holes, and ascertain the extent of zinc, silver and copper mineralisation.

Assays are pending.

The second phase of drilling will target immediately east of the Brumby SEDEX-style zinc system, where field mapping and sampling outlined a large area of shallow copper mineralisation. The second phase of drilling will feature II reverse circulation holes targeting both the suspected copper zone to the

east, as well as the SEDEX zinc zone.

Aside from Brumby, the Edmund Basin project contains four other licence areas, and the company has a further two exploration licence applications pending.

In all, the combined Edmund Basin project area covers a 130km-long strike area.

The Vernon base metals project represents an additional 80km of strike, immediately west of Brumby.

Then there is the Kiangi uranium target, to the far west of Brumby, where testing of high-grade surface rock chip samples returned uranium content of up to 0.12%.

In between Vernon and Kiangi are two other licence areas - the Vernon platinum-group metals prospect, and Gorge Creek, which is prospective for nickel and platinum-group metals.



- May IPO raised \$6.5 million backed industry figures including Bellevue Gold founder Steve Parsons and Capricorn Metals executive chairman Mark Clark.
- Key asset Edmund Basin tenement near Abra mine, with five exploration licences, prospective for zinc, silver, uranium, nickel, copper and platinum group metals.
- Kicked off exploration with surface sampling and 2500m RC drilling at Brumby within Edmund.



STEVE PARSONS
MANAGING DIRECTOR

BELLEVUE GOLD

(ASX:BGL)

■ Company Name: Bellevue Gold

Company ASX code: BGLKey Commodities: Gold

■ Key Personnel: Steve Parsons, Managing

Director | Kevin Tomlinson, Non-Executive Chairman | Darren Stralow, Chief Executive

Officer

■ Locations: Western Australia

■ Market Cap as of 15/11/22: \$942.77M

■ 52 Week Share Price Range at 15/11/22:

\$0.620 - \$1.045

■ Company Website:

www.bellevuegold.com.au

COMPANY PROFILE

Bellevue Gold is on the fast track to becoming a globally significant highgrade, high-margin, gold producer in Australia, with construction of its namesake project well underway and first production slated for the second half of 2023.

When operational, the Bellevue gold mine is forecast to be one of the highest-grade, lowest-cost mines in Australia, producing an average of 200,000 ounces each year over the first five years at an all-in sustaining cost of \$1000-1100/oz.

The underground mine has

significant grade and scale to make it a highly profitable operation capable of delivering an estimated \$2.1 billion of free cashflow (pre-tax) over the life of mine at an assumed gold price of \$2500/oz.

BGL is rapidly growing the resources and reserves, extending the mine life by 25% to +10 years in the 10 months to June 2022, and there's still plenty of exploration blue sky to extend it further.

The current 3.1Moz resource has been defined to within the top 650m and remains open in all directions. Forty per cent of that resource sits outside the current mine plan, which provides further growth potential through the conversion to reserves.

The Bellevue project sits in a region that is host to 200Moz of gold endowment and since the high-grade discovery intercept of 5m at 37.5 grams per tonne was announced in November 2017, the resource has grown at a compound annual growth rate of 63%.

Meanwhile, the reserve has grown at a compound annual growth rate of 68% since February 2021.

The company has significantly de-risked the Bellevue mine and is fully funded into production with a \$200 million underwritten and credit-approved project loan facility with Macquarie Bank to fund construction and development activities.

Ticking the sustainability box, Bellevue plans to build an off-grid hybrid power station that will enable the mine to have one of the lowest scope-1 emissions of any major gold mine in Australia, and on a greenhouse gas emissions intensity per ounce basis.

The power station will enable the project to operate on 100% renewable energy and 'engine off' capabilities for

up to days at time.

The Bellevue mine development is on schedule and budget, with the significant progress made so far setting BGL up to become a top-20 ASX gold producer in 2023.

The company is backed by a proven team of mine builders, headed by experienced geologist Steve Parsons, who successfully founded Gryphon Minerals and discovered the 3Moz Banfora gold project that was eventually acquired by Endeavour Mining.

Darren Stralow, Bellevue CEO, has 20 years of experience in the industry and hails from another successful gold producer, Northern Star Resources, where he served as the chief development officer and general manager of operations.



- Bellevue Gold is positioned to become a top-20 ASX gold producer in the second half of CY2023.
- The Bellevue gold mine is forecast to be one of the highest-grade, lowest-cost mines in Australia generating around \$2.1 billion of free cashflow over the mine life.
- Bellevue Gold has a highly experienced management team and is fully funded through to production.



MICHAEL NAYLOR
EXECUTIVE DIRECTOR

CYGNUS GOLD

(ASX:CY5)

■ Company Name: Cygnus Gold

■ Company ASX code: CY5

■ Key Commodities: Lithium

■ Key Personnel: Michael Naylor, Executive

Director | David Southam, Non-Executive
Director, commencing as Managing Director

in February 2023 | Ray Shorrocks,

Non-Executive Chairman

■ Locations: Quebec, Canada and

Western Australia

■ Market Cap as of 15/11/22: \$92.05M

■ 52 Week Share Price Range at 15/11/22:

\$0.130 - \$0.625

■ Company Website: www.cygnusgold.com

COMPANY PROFILE

Cygnus Gold has set itself on a pathway to rapid growth after its game-changing acquisition of a high-grade lithium spodumene project.

While Perth-based CY5 is actively exploring for a range of critical minerals, it laid the foundations to build a substantial lithium company by striking a binding agreement to earn up to 70% of the Pontax Lithium Project in Quebec.

Cygnus will also take a significant shareholding in current Pontax owner, TSXV-listed Stria Lithium.

The Pontax project in the James Bay area lies within one of one of the world's most endowed lithium terranes, even though it has had only minimal exploration in the past 20 years.

Surrounded by globally significant multi-billion-dollar lithium projects, including Abitibi Lithium Hub (II9.IMt at 1.1% Li₂O), Pontax is also in one of Canada's most prolific mining districts and close to excellent infrastructure, including access to Quebec's hydro power network.

Cygnus is now focused on accelerating progress at Pontax and its newly acquired exploration tenements, which span 266km² and include 40km of highly prospective strike length adjacent to Pontax.

The company's 10,000m drilling program commenced on schedule at the start of November and Cygnus' news flow will be worth adding to watch lists over coming months.

With global lithium demand forecast to surpass two million metric tons of lithium carbonate equivalent by 2030, more than double the demand forecast for 2025, Pontax has the potential to create significant value for shareholders.

High-grade lithium spodumene bearing pegmatites have already been identified through historic exploration at Pontax and executive director Michael Naylor said preliminary results from the magnetics and LiDAR already demonstrated the project's huge potential.

"We know from previous drilling that there is significant high-grade spodumene over a 620m strike length," Naylor said.

"This initial phase of drilling is designed to extend that known mineralisation down dip and along strike.

"The bulk of existing drilling only scrapes the surface at around 80m vertical depth. The first few holes will test the potential to increase the size of the system rapidly.

"With approximately \$10 million in cash and commitments, it's going to be an exciting few months now the 10,000m drill programme has started."

The company's strong cash position will also be complemented by significant tax incentives for mining companies in Quebec.

Naylor is part of a quality management team that now includes David Southam. The highly regarded resources executive joined the board as a non-executive director on November 1 and he will step into the managing director role from mid-February.

Other directors bring to the board additional experience in listed companies in the resources sector, including Bellevue Gold.

They're supported by a management team including lithium geologist Gareth Reynolds and chief geologist Duncan Grieve.



- Cygnus has a 266km² landholding in the heart of the world-class James Bay lithium region.
- First-pass drilling intercepted highgrade lithium spodumene, including 9m at 1.7% Li₂O from 46.9m, 15.6m at 1.6% Li₂O from 83.9m; 4.8m at 2.6%Li₂O from 19.4m; and 13m at 1.4% Li₂O from 36m.
- Recently completed LiDAR and magnetics has delivered numerous walk-up targets, including unmapped pegmatites.



BRENDAN BRADLEY
MANAGING DIRECTOR

DEVEX RESOURCES

(ASX:DEV)

■ Company Name: DevEx Resources

■ Company ASX code: DEV

■ Key Commodities: Uranium, nickel,

copper, gold

■ Key Personnel: Tim Goyder, Chairman |

Brendan Bradley, Managing Director

■ Locations: Northern Territory, Western

Australia, New South Wales

■ Market Cap as of 15/11/22: \$100.67M

■ 52 Week Share Price Range at 15/11/22:

\$0.205 - \$0.790

■ Company Website:

www.devexresources.com.au

COMPANY PROFILE

Chaired by successful mining investor Tim Goyder, DevEx Resources has amassed a prospective portfolio of projects in some of Australia's hottest exploration jurisdictions. With a clear strategy to deliver a major discovery for its shareholders, DevEx has a number of active exploration programs underway.

DevEx's Nabarlek project sits in

Australia's highest grade uranium region – the Alligator Rivers Uranium Province in the Northern Territory, which has an endowment of 500 million pounds of uranium mined and in current resources.

The project is centred on the historic Nabarlek mine which produced 24Mlbs at 1.84% uranium oxide when it was in operation, making DevEx one of very few ASX-listed companies with a major asset in Australia's highest-grade uranium province and in a territory supportive of uranium mining.

Numerous drill targets identified from 50 years of exploration have laid the foundation for DevEx's drill programs, both this year and next.

The early results achieved this year have more than vindicated the company's exploration approach, yielding multiple shallow, near-mine, high-grade uranium equivalent hits, with a standout uranium equivalent result so far of 10.7m at 1.2% eU₃O₈, along strike from historic intercepts at Nabarlek South.

The company's uranium hunt is well timed, with Bradley highlighting a recent paradigm shift in positive global sentiment towards the uranium sector and its role in global decarbonisation.

"This has led to a resurgence in the uranium spot price as markets start to weigh up supply against increasing demand," he said.

"There is a growing recognition of the importance of nuclear power as an essential source of baseload energy if the world is to achieve its ambition of transitioning to a decarbonised future."

DevEx also has an exciting exploration opportunity in the new Julimar Province of Western Australia, the same region where Chalice Mining made a major nickel-copper-platinum group elements (PGE) discovery that

propelled it from a small cap to a nearly \$4 billion market cap at its peak.

The Sovereign project, which is located between Chalice's discovery and Caspin Resources' Yarawindah Brook nickel-copper-PGE project, hosts a large 12km-long mafic-ultramafic intrusion that has never been explored for nickel, copper or PGEs.

DevEx is also on the hunt for the next big copper-gold discovery at its Junee project in the Lachlan Fold Belt of NSW, which hosts globally significant mines like Newcrest Mining's Cadia-Ridgeway operation and CMOC's Northparkes mine.

With majors such as Newmont Australia actively exploring to the north, DevEx is undertaking exploration on some very underexplored ground, with further drilling planned late in 2022/early 2023 to follow up several large-scale gold-copper targets.



- Strategically positioned in Australia's discovery hotspots with highly prospective projects in the NT's Alligator Rivers
 Uranium Province, the new Julimar Province in WA, and NSW's Lachlan Fold Belt.
- One of very few ASX-listed companies with a large ground-holding actively drilling for high-grade uranium at a time of strengthening uranium demand and prices.
- Well-funded, with \$19.1m for continued exploration and drilling.



NED SUMMERHAYES

E79 GOLD MINES

(ASX:E79)

■ Company Name: E79 Gold Mines

■ Company ASX code: E79 ■ Key Commodities: Gold

■ Key Personnel: Ned Summerhayes, Chief Executive Officer | Chris Cairns, Chairman |

Peter Ironside, Director

■ Locations: Laverton South,

Murchison Goldfields

■ Market Cap as of 15/11/22: \$9.90M

■ 52 Week Share Price Range at 15/11/22:

\$0.090 - \$0.300

■ Company Website: <u>www.e79gold.com.au</u>

COMPANY PROFILE

E79 Gold Mines is living up to its motto 'money in the ground' with two flagship projects spanning a highly prospective 896km² in regions known for globally significant gold deposits.

Both 100% owned projects are in greenstone belts, which are named for the green hue of their rocks but best known for hosting some of the world's largest and most successful producing gold mines.

The Laverton South Project includes

355km² in the Laverton Tectonic Zone - one of the world's most prolific gold belts with an endowment of over 30Moz.

In the Murchison Goldfields, which also has around 30Moz of endowment, E79's Jungar Flats Project comprises 54lkm².

The north-central portions of Laverton are home to gold mines well known to investors, including Granny Smith, Wallaby and Sunrise Dam.

But the southern portion where E79 holds tenements is under-explored, giving E79 a first-mover opportunity – often key to exploration success.

At the Pinjin tenements within Laverton South, 21,500m of air-core results have so far revealed two 1600m long anomalous gold zones.

E79 is wasting no time following up on these highly encouraging results from tenements along strike of the Anglo Saxon (Trouser Legs) gold mine, with deeper drilling planned at both zones this year.

Also at Laverton South, the Lake Yindana tenure controls the north and south strike extensions of Ramelius Resources' recent +1Moz discovery Rebecca/Duchess. It's in the same neighbourhood as Breaker Resources' recent +1.5Moz discovery at Bombora.

Meanwhile at Jungar Flats in the Murchison, E79 this year increased its tenement area by 37% to 54l km².

E79 CEO Ned Summerhayes said the new ground meant the project covered about 90km of strike of the prospective Big Bell Shear Zone, only 25km south towards the 2.8Moz Big Bell gold mine – the largest mine in the region.

A large-scale auger program is underway at Jungar Flats, following up on a gravity survey and using the innovative ultrafine analytical technique, developed by the CSIRO, which identified gold anomalism at three of four target areas.

E79 is well-funded with \$6.15 million in the bank at the end of the last quarter.

The company is led by a strong team.

Chair Chris Cairns is the former head of Integra Mining who discovered and developed gold mines in the Eastern Goldfields, and led Stavely Minerals to success looking for copper in Victoria.

Director Peter Ironside has experience in the accounting, financial compliance and corporate governance side of mining, including leadership roles at Integra Mining and Extract Resources before its \$2.18 billion takeover.

As principal of Valuation and Resource Management, director Deborah Lord brings a wealth of exploration experience. Deborah is also on the boards of the Centre for Exploration Targeting at the University of Western Australia and the VALMIN committee.



- E79 is an active explorer, investing in exploration activities gaining momentum across 896km² of prospective ground.
- The company is well-funded for future exploration programs, with \$6.15 million in the bank at the end of the last quarter.
- Directors have a history of exploration success, including with Integra Mining and Stavely Minerals.



TIMOTHY SPENCER
MANAGING DIRECTOR

ESSENTIAL METALS

(ASX:ESS)

■ Company Name: Essential Metals

■ Company ASX code: ESS ■ Key Commodities: Lithium

■ Key Personnel: Timothy Spencer, Managing

Director | Craig McGown, Chairperson | Andrew Dunn, Exploration Manager

■ Locations: Western Australia

■ Market Cap as of 15/11/22: \$120.35M

■ 52 Week Share Price Range at 15/11/22:

\$0.160 - \$0.735

■ Company Website:

www.essmetals.com.au

COMPANY PROFILE

Against the backdrop of a white-hot lithium sector – soaring electric vehicle sales and the continuing escalations in prices for both lithium salts and spodumene, it is becoming clear that developers with deposits in tier I locations have an exciting opportunity ahead of them.

One such company is Essential Metals with its hard rock spodumene project

- Pioneer Dome – moving through the value-adding pre-development stages in

Western Australia's lithium corridor in the eastern Goldfields region.

The Pioneer Dome project is one of only 14 lithium mineral resources in Australia, putting the advanced lithium stock in rarefied air.

Essential Metals believes the resource at Dome North is imminently mineable, with engineering services firm Primero Group appointed to undertake a scoping study on the project to provide capital and operating cost estimates.

"This will help us convey to investors the robustness of a lithium project like ours," Tim Spencer, Essential managing director, said.

However, in parallel with moving towards development, Essential Metals is continuing to explore and is hoping with a bit of geological luck it might be able to grow its resource, which currently sits at 11.2Mt at 1.2% Li₂O across three deposits – Cade, Davy, and Dome North.

The main orebody is the Cade deposit with an indicated category of 5.4Mt at 1.3% Li₂O, but the beauty of the project is that the three deposits which make up the resource all come to surface.

Metallurgical test work to date indicates that the bulk of the Dome North resource (Cade Fresh, Cade Weathered and Davy Fresh) will result in high recoveries with the production of marketable concentrate grades.

Designed to determine recoveries based on a hybrid pilot DMS and flotation flowsheet, these results show the Cade Weathered mineralisation is expected to return an overall recovery similar to the 74-82% Li₂O recovery rates returned from the previously tested Cade Fresh composite sample back in 2020.

While the whole Cade deposit represents 73% of the mineral resource, results also demonstrate that mineralisation at Davy Fresh is expected to return a lower overall recovery at around 64% Li₂O.

Spencer said this work provided further evidence of the high-quality nature of the Dome North lithium resource and was a key input for the scoping study, as it will determine how much each domain represents in terms of mining inventory.

Essential Metals' management team is made up of experienced resource executives, who have been involved in multiple developments from firming up a resource to production.

As the lithium demand outlook points to deficits only becoming larger from 2024 amid the growing adoption of the 'electrification' thematic, Essential Metals is well-funded and well placed to grab the bull by its horns.



- A mineral resource of 11.2Mt at 1.2% Li₂O has been defined in the northern area of the Pioneer Dome project.
- Scoping study scheduled for delivery in January and mineral resource update set for release in December.
- Expressions of interest for funding and offtake agreements for material from Pioneer Dome have been requested.



MARK TURNER CEO

GREENVALE MINING

(ASX:GRV)

■ Company Name: Greenvale Mining

■ Company ASX code: GRV

■ Key Commodities: Torbanite, geothermal

power

■ Key Personnel: Mark Turner, Chief Executive Officer | Tony Leibowitz, Non-Executive Chairman | Neil Biddle, Non-Executive Director | Elias Khouri, Non-Executive Director

■ Locations: Queensland

■ Market Cap as of 15/11/22: \$24.03M

■ 52 Week Share Price Range at 15/11/22:

\$0.055 - \$0.445

■ Company Website:

www.greenvalemining.com

COMPANY PROFILE

Greenvale Mining is a Queensland-based mineral exploration company currently focused on a core mission: to pave the way for a greener future by producing cleaner, higher quality bitumen.

With a strong, well-credentialed team at the helm, Greenvale is proving that core competencies and agility can go hand in hand in the mining industry.

As recently as 2020, GRV was in the iron oxide copper-gold business under

the watchful eyes of Neil Biddle and Tony Leibowitz, who had previously worked together to deliver massive success for Pilbara Minerals taking it from a sub-\$10 billion shell to +\$1 billion lithium miner in under five years.

Turning their talents towards building Greenvale into another success, Biddle, Leibowitz and GRV CEO Mark Turner have steered the company towards developing its Alpha torbanite project in Queensland.

To understand Greenvale's current direction, you need to understand torbanite – a sapropelic coal with a high oil content which, because of shallow lagoon algae precursors that were deposited during formation, produces light, versatile hydrocarbons.

The Alpha torbanite was discovered more than 80 years ago, and recent test work has confirmed it as a uniquely abundant, exceptionally high-grade resource, containing up to 650 litres of hydrocarbons per tonne of torbanite – ideal for producing high-value bitumen.

At present, Australia imports 100% of its bitumen binding products, with 44% coming from China. This presents an opportunity for Greenvale to become the sole domestic supplier of a superior product, made under arguably far more environmentally friendly conditions.

That is why, to help advance its Alpha project, Greenvale recently acquired a 51% controlling interest in Within Energy, a privately held geothermal energy play that holds three tenure applications in Queensland.

The acquisition means GRV now holds six geothermal applications within the Millungera Basin, which an independent geothermal study by the Queensland government has highlighted to be the most prospective site in Australia.

Greenvale is pursuing the use of binary cycle systems technology to

enable energy production from lower temperature geothermal reservoirs, which can also support 24/7 energy baseload requirements.

It's an approach to geothermal energy gaining wider popularity among energy producers around the world, and is currently contributing over 4100MWh of energy in the US with capacity growing by up to 4% per year, Greenvale says.

The acquisition of Within Energy means that Greenvale is currently developing a total of 6 geothermal sites around Queensland – and it's that push for an exploitable and economic geothermal power source will provide sufficient carbon credits to offset future production at Alpha.

With what is effectively a carbon-offset source of torbanite supply, Greenvale's goal of paving the way for a greener future is well within its sights.



- Clear vision to become the only sustainable, domestic, and fully carbon-offset producer of bitumen products to feed the critical infrastructure needs of Australia.
- Greenvale has the only commercial reserve of rare torbanite in Australia, if not the world.
- Geothermal energy is the only truly renewable, fully dispatchable energy source capable of supporting 24/7 base load requirements.



ANDREW MUNCKTON MANAGING DIRECTOR

KIN MINING

(ASX:KIN)

■ Company Name: Kin Mining

■ Company ASX code: KIN

■ Key Commodities: Gold

■ Key Personnel: Andrew Munckton,

Managing Director | Steve Jones, CFO

& Company Secretary | Leah Moore,

Exploration Manager

■ Locations: Leonora, Western Australia

■ Market Cap as of 15/11/22: \$82.83M

■ 52 Week Share Price Range at 15/11/22:

\$0.066 - \$0.125

■ Company Website:

www.kinmining.com.au

COMPANY PROFILE

Kin Mining is actively delivering on its strategy of uncovering large new gold deposits in Western Australia's Leonora district, having recently boosted the resource inventory at its Cardinia project to 1.41 million ounces.

There's plenty more opportunities to grow the resource across the company's expansive 777km² landholding in the tier l gold region, with major drilling programs in progress targeting extensions of existing deposits and discoveries.

Kin's exploration ground is surrounded

by multi-million-ounce mines including St Barbara's 13Moz Leonora operations, Genesis' 2Moz Leonora project and Dacian's 2.3Moz Mt Morgans project.

ASX-200 gold producer St Barbara has a 15% strategic stake in Kin, one of a number of major producers looking to shore up supply to feed their underutilised mills.

Kin also has exposure to one of the key participants in the consolidation of the Leonora mining district, Dacian Gold, after taking a minority stake in the company. Dacian previously caught the eye of Genesis Minerals, which is now a majority shareholder after it kicked off a takeover bid for the gold producer.

"Dacian has been one of the key producers in the district and represents an important part of the ongoing consolidation," Andrew Munckton, Kin Mining managing director, said.

"We believe this acquisition represents a good value, strategic investment decision and positions us to help facilitate the consolidation of the Leonora region. We see an opportunity for Kin to play a meaningful and constructive role in future consolidation with the district's second-largest processing plant."

Kin continues to make significant new discoveries in the region, having defined the Helens East, Pegasus, and Rangoon deposits in recent months.

Drilling of the targets in the Eastern Corridor has delivered high-grade intercepts close to surface and at depth from all locations including 7m at 24.5 grams per tonne (g/t) from 107m at the Helens East prospect and 3m at 209g/t from surface at the East Lynne prospect.

Munckton said the September 2022 quarter had been important, with exploration efforts at Cardinia underpinning a 10% increase in the resource to 1.41Moz of contained gold.

"The bulk of this increase came from

the highly prospective Eastern Corridor, including a 95,000-ounce maiden mineral resource estimate for the recently discovered Rangoon deposit," he said.

"The Eastern Corridor remains the key focus for our ongoing exploration programs, with outstanding opportunity for further significant mineral resource growth."

Kin is aggressively targeting new, larger, higher grade gold deposits with the near-term goal of boosting its resource to 2Moz.

The company is cashed up, having undertaken a \$13.7m capital raising to underpin this next phase of Cardinia exploration.

Development-ready, Cardinia is strategically located within an 80km radius of several major mills and has potential as a standalone operation, giving Kin development optionality.



- Extensive land package and key assets in tier 1 gold mining district Leonora.
- Large 1.41Moz resource at 100%-owned Cardinia gold project, near multi-million-ounce deposits and several mills providing development optionality. ~450koz of resources expected to be permitted by early 2023.
- Aggressive exploration approach with resource expansion opportunities targeting new, larger, higher-grade gold deposits and growth to 2Moz.



DAVID RICHARDSMANAGING DIRECTOR

MINERALS 260

(ASX:MI6)

■ Company Name: Minerals 260

■ Company ASX code: MI6

■ Key Commodities: Copper, nickel,

palladium, platinum, gold

■ Key Personnel: David Richards, Managing

Director | Matt Blake, Exploration Manager |

Anthony Cipriano, Chairman

■ Locations: Western Australia

■ Market Cap as of 15/11/22: \$74.80M

■ 52 Week Share Price Range at 15/11/22:

\$0.225 - \$0.835

■ Company Website:

www.minerals260.com.au

COMPANY PROFILE

Spun out from ASX market darling Liontown Resources, Minerals 260 is a well-resourced exploration player focused on projects in Western Australia – one of the world's best resources jurisdictions.

MI6 is steered by an experienced team including managing director David Richards, who was instrumental in the discovery of the Kathleen Valley lithium deposit – the asset which made Liontown Resources a battery metals juggernaut.

Richards left Liontown to head up Minerals 260, which listed in October 2021.

After the IPO, Minerals 260 had \$28 million in the bank, tenure over the key Moora project, and a 51% earn-in right at the adjacent Koojan joint venture with Lachlan Star. The projects are in the same geological terrain as Chalice Mining's ground-breaking Julimar discovery which is located ~90km to the south.

Minerals 260's other main asset is the Dingo Rocks project north of Esperance, where adjacent drilling by Meeka Metals has intersected gold and REE mineralisation. Initial geophysical surveys at Dingo Rocks have defined significant anomalies which will assessed by drilling and ground EM.

But the Julimar Mineral Province is where Minerals 260 kicked off exploration soon after its IPO, and drilling has mostly focused on its 100%-owned Moora project, adjacent to the Koojan JV area.

Results so far have yielded significant mineralisation at a number of prospects:

- Up to 43m at 1.8g/t gold at Angepena;
- 24m at 0.7g/t gold and 1.9% copper at Mynt;
- 12m at 2.0g/t gold and 1.4% copper at Zest, and;
- 3m at 0.52g/t platinum group elements (palladium + platinum) at Acga.

All four prospects are located on the margin of the Moora gravity anomaly, a large geophysical feature interpreted to define a mafic/ultramafic intrusion obscured by shallow cover.

Meanwhile at the adjacent Koojan joint venture, the company has defined numerous targets for follow up drilling.

A 15,000m RC/diamond core drilling program, designed to follow up previous results and test 22 new targets, commenced in mid-November 2022 at Moora and Koojan.

On commencement of drilling, Richards said Minerals 260 was confident in the mineralised potential of its Julimar regional landholding.

"In addition to gold and copper, we have always been confident that the Moora and Koojan Projects are prospective for PGE mineralisation analogous to that discovered further south in the Julimar Mineral Province," he said.

"The recent intersection of highly anomalous PGE values at Acga, coincident with the southern margin of the Moora Gravity Anomaly, confirms this view and we look forward to following up these results as well as testing other priority targets as part of the upcoming drilling program."

Initial assays from this program are expected late January 2023.



- Strong cash position \$22 million in bank allows the company to advance existing projects and pursue new opportunities.
- Large (~1000km²), contiguous land position in Julimar Mineral Province of southwest Western Australia with multiple base and precious metal intersections recorded from early drilling.
- Steered by board and management with a track record of recent success, including at lithium player Liontown Resources.



SIMON LILL CHAIRMAN

NIMY RESOURCES

(ASX:NIM)

■ Company Name: Nimy Resources

■ Company ASX code: NIM ■ Key Commodities: Nickel

■ Key Personnel: Simon Lill, Chairman | Luke Hampson, Executive Director | Christian Price,

Executive Director

Locations: Australia

■ Market Cap as of 15/11/22: \$34.3M

■ 52 Week Share Price Range at 15/11/22:

\$0.195 - \$0.635

■ Company Website:

www.nimy.com.au

COMPANY PROFILE

The stars are lining up for junior WA nickel explorer Nimy Resources, which continues to generate strong results against the backdrop of a sharply rising nickel price.

Nimy's latest results added significantly to the growing band of geological evidence which suggests that it is closing in on higher-grade nickel at its Mons project.

And Nimy's board would know given that it is chaired by Simon Lill, who is also chairman of run-away WA gold explorer and developer De Grey Mining.

Mons sits at the northern end of the world-famous Forrestania nickel belt, which hosts several highly lucrative nickel sulphide discoveries.

But despite its history of immense discovery success, next-to-no nickel exploration has been conducted at the northern end, where Nimy has accumulated a large, highly prospective land holding.

Nimy has established that all the key geological requirements for successful nickel exploration exist in abundance at Mons. Now it is a question of homing in on the higher grade areas with the potential to underpin a large, lucrative operation.

This process has just taken another pivotal leap forward with cutting-edge geophysics leading to five electromagnetic conductor plates being identified.

Known in the industry as EM plates, they are considered highly promising in exploration because their conductivity could be due to the presence of mineralisation.

Nimy has now identified five of these EM plates at three prospects within Mons. Importantly, soil sampling and drilling has confirmed anomalous nickel at or close to all three prospects.

Nimy is now preparing to drill all three prospects, including the Dease prospect, where drilling has already intersected nickel over substantial widths. This includes a highly promising intersection of up to 0.48% nickel in sulphides with copper and cobalt over a huge 316m intersection at Mons.

That result is considered particularly important because it sits directly below the nickel gossan outlined at Dease. This outcropping gossan has been mapped over l.lkm in a horseshoe shape.

In addition to its highly promising nickel exploration program, Nimy also

revealed recently that it had identified an extremely prospective rare earths feature at Mons.

Nimy says this rare earths target has key similarities to the lucrative Mt Weld rare earths deposit being mined by Lynas Rare Earths.

The key line for investors in Nimy's statement on the rare earths potential at Mons is: "the Nimy Resources Mons Project carbonatite presents geophysically as similar to the Mt Weld carbonatite, a world-class producer of REEs.

"Geophysics indicate a magnetic low presenting as a core (possibly a dike) within a circular magnetic high. There are no other interpreted magnetic anomalies high or low in the vicinity".

Soil sampling is already underway and samples have been sent for assaying.



- Nimy has a very large landholding at its flagship Mons project in a prime nickel-copper exploration address.
- The Mons project hosts over 30 targets in six zones, with no shortage of exploration work in the pipeline.
- Early exploration success in Zone A across multiple prospects.
- Strong rare earths potential with carbonatite identified.



PAUL LOCK
MANAGING DIRECTOR

PAN ASIA METALS

(ASX:PAM)

■ Company Name: Pan Asia Metals

■ Company ASX code: PAM

■ Key Commodities: Lithium and tungsten

■ Key Personnel: Paul Lock, Managing Director | David Hobby, Technical Director & Chief Geologist

■ Locations: Southeast Asia

■ Market Cap as of 15/11/22: \$58.74M

■ 52 Week Share Price Range at 15/11/22:

\$0.330 - \$0.750

■ Company Website:

www.panasiametals.com

COMPANY PROFILE

Battery and critical metals explorer and developer Pan Asia Metals has a portfolio of three highly prospective projects in the Southeast Asian tintungsten belt, around 70km northeast of Phuket in southern Thailand.

Having spent more than 10 years in the region, the company has firmly positioned itself as a local company with an established team of Thai staff uniquely placed to deliver lithium chemicals to the region.

Pan Asia Metals is looking to supply 10,000 tonnes per annum of lithium carbonate equivalent (LCE) into Thailand's rapidly growing battery and electric vehicle supply chain from its two lithium projects – Reung Kiet, where a mineral resource was recently defined, and Kata Thong, where an exploration target was recently set.

Thailand is the largest automotive manufacturer in Southeast Asia and the fourth largest in Asia, with 21 auto assemblers, including names such as Toyota, Nissan, Mitsubishi, Honda, Mercedes and BMW. Mercedes is producing its EQS EV there and Chinese producers Geely, BYD and Great Wall Motors have started producing EVs there.

The country aims to retain EV leadership through its Electric Vehicle Policy – which targets 30% EV production by 2030 by providing income tax exemptions of up to 13 years and import tariff exemptions on machinery and raw materials used in manufacturing.

In August, Thailand's Policy on Mining and Downstream Industry was launched, putting minerals supply chain security front and centre of Thailand's industrial growth initiatives, encouraging mineral exploration, mining and/or mineral dressing, and smelting or metallurgy.

MD Paul Lock said South East Asia provided benefits other regions didn't.

"One of the reasons we're in Asia is the cost environment," he said.

"We've got a huge manufacturing and chemical industry there, and you can bring in the expertise to partner with. That's our objective, and it's very regionally suited."

Pan Asia Metals has identified a 113,027t LCE resource at its lepidolite

style Reung Kiet Lithium prospect, where it is looking to become a downstream producer of lithium chemicals for use in cathode active material (CAM) manufacturing.

Ore sorting tests have demonstrated the ability to uplift the head grade to the beneficiation plant, in this case almost doubling the grade to >0.90% Li2O.

"This is a fantastic outcome," Lock said.

"We expect it will result in capital and operating cost savings as we will require less beneficiation capacity - lower capex - and we will be processing less product - lower opex."

Rock chip and soil sampling uncovered a new zone at the Bang I Tum prospect north of Reung Kiet, where 12 samples returned + 2% lithium oxide with a top grade of 2.62% lithium oxide.

The new zone is about twice the size of the drill-supported exploration target and located immediately to the southeast.

PAN ASIA/ETALS Exploring a Better Future

- The only explorer in Southeast Asia with advanced lithium projects on its books, Pan Asia Metals is poised to benefit from the EV revolution.
- Thailand remains the largest auto producer in the region, and fourth largest in Asia.
- Pan Asia Metals is positioned to produce 10,000tpa lithium carbonate for 10 years from its Thai projects.



KEN BRINSDEN
NON-EXECUTIVE CHAIRMAN
& DIRECTOR

PATRIOT BATTERY METALS

■ Company Name: Patriot Battery Metals

■ Company ASX code: Not yet listed

■ Key Commodities: Lithium

■ Key Personnel: Blair Way, CEO, President & Director | Ken Brinsden, Non-Executive

Chairman & Director | Dusan Berka, Chief Financial Officer & Director

■ Locations: Quebec, Canada

■ Market Cap as of 15/11/22: Not yet listed

■ 52 Week Share Price Range at 15/11/22:

Not yet listed

■ Company Website:

www.patriotbatterymetals.com

COMPANY PROFILE

After steering lithium giant Pilbara Minerals from a penny stock into one of Australia's largest mining companies, Ken Brinsden's next move was always going to be closely watched.

As non-executive chairman of TSX-listed Patriot Battery Metals, Brinsden is looking to repeat the dose alongside CEO and president Blair Way and a highly credentialed team aiming to

cultivate North America's next great lithium find.

At the Corvette property in Canada's James Bay lithium district, Patriot has an emerging North American lithium raw materials discovery. Patriot controls 214km² in the hot Quebec exploration district along a 50km long pegmatite trend.

The company has undertaken a fully funded 20,000m drill program at Corvette, with a maiden resource expected in the March quarter of 2023. So far more than 85 holes have been completed to date targeting the CV lithium trend at Corvette, discovered in 2017.

Each of these has struck pegmatite More than 70 outcrops have been detected, and over 20km has been evaluated. There remains more than 20km to test, suggesting a large-scale lithium opportunity.

The largest of the outcrops is the CV5 Pegmatite, where Patriot uncovered 0.93% lithium oxide and 114 ppm tantalum pentoxide over 146.8m in a discovery hole in Autumn 2021.

Follow ups to CV5's discovery hole included 1.22% Li₂O and 138ppm Ta_2O_5 over a wide 152.8m, and 1.25% Li₂O and 194ppm Ta_2O_5 over 58.1m.

Results at CVI, the core pegmatite's north-eastern tip, include 3.01% Li₂O over 40.7m, 1.65% Li₂O over 159.7m and 2.13% Li₂O over 86.2m.

Patriot will soon sit alongside other major players in the Australian lithium investment market, with a joint listing expected on the ASX prior to Christmas.

Its emergence comes as the US and Canada begin to act against the dominance of China in the battery metals and EV supply chain.

Lithium prices have risen fourfold this year, displaying a scary undersupply situation even more pronounced within North America. Despite strong government support, almost no lithium for the growing US battery supply chain is sourced locally, making districts like James Bay a high priority for investment in the battery metal.

It boasts Allkem's James Bay deposit - 37.2 million tonnes at 1.3% Li₂O. Also close enough to touch are Rose - 26.8Mt at 0.85% Li₂O and 133ppm Ta₂O₅; Whabouchi - 27.9Mt at 1.33% Li₂O; and Moblan - 10.7Mt at 1.4% Li₂O.

Equally exciting is the infrastructure in the vicinity. Corvette is just 15km from high voltage power lines connected to one of the world's largest hydro power schemes, the La-Grande 4.

It means Patriot could produce 'green lithium', helping electric vehicle makers remove emissions from their supply chain.



- Patriot Battery Metals made a significant lithium discovery at its Corvette project in the emerging James Bay region in Quebec, Canada.
- Drilling widths and grades include hits like 1.65% Li₂O over 159m and 3.01% Li₂O at over 40.7m, confirming the scale of the find.
- Toronto-listed Patriot is planning an ASX listing before Christmas with a maiden resource due March 2023.



DALE HENDERSONCEO & MANAGING DIRECTOR

PILBARA MINERALS

(ASX:PLS)

■ Company Name: Pilbara Minerals

■ Company ASX code: PLS
■ Key Commodities: Lithium

■ Key Personnel: Dale Henderson, CEO & Managing Director | Brian Lynn, CFO | Alex Eastwood, Chief Commercial & Legal Officer,

Company Secretary

■ Locations: Pilbara, Western Australia

■ Market Cap as of 15/11/22: \$15.84B

■ 52 Week Share Price Range at 15/11/22:

\$1.975 - \$5.660

■ Company Website:

www.pilbaraminerals.com.au

COMPANY PROFILE

Pilbara Minerals is well positioned at a time of massive lithium demand, having established itself as a globally significant producer as EV demand has turned the once obscure metal into the world's hottest commodity.

PLS' Pilgangoora project, located ~120km south of Port Hedland in WA's Pilbara region, is the largest independently owned hard-rock lithium operation in the world and one

of the few major hard-rock lithium producers globally.

The mine currently produces around 580,000tpa but also has strong growth options.

The company has mapped out an accelerated growth pathway via its P680 (FID approved June 2022) and P1000 (final FID expected in the December quarter 2022) expansion projects, which should expand production to 1Mtpa over the mine's ~26 year mine-life.

CRU Group sees lithium demand increasing 15 times over the next two decades. At the same time the lithium deficit is widening, with the market expected to need the equivalent of 18 Pilgangooras by 2040.

WA is a prime location for lithium producers given the state's hard rock spodumene mines supply around half of the world's lithium carbonate equivalent production.

As a result of the ever-deepening supply gap, lithium prices continue to notch new records.

These higher prices, combined with increased production, saw Pilbara Minerals more than double its cash balance from \$591.7m to \$1.375bn in the September 2022 quarter.

Anthony Kiernan, Pilbara Minerals non-executive chair, said the turnaround in the lithium market had been by any measure very significant, with exceptionally strong demand from the company's customer base and record pricing outcomes reflecting a shortage of lithium raw materials globally.

"The increase in demand is being driven by the growing use of lithiumion batteries to drive decarbonisation, with the take-up of electric vehicles continuing to accelerate – not just in China – but worldwide," he noted.

But Pilbara Minerals hasn't just set its sights on being a producer, the company has positioned itself to capture value throughout the entire lithium raw material and chemical supply chain.

PLS recently completed negotiations with POSCO to enter a JV to construct and operate a 43ktpa battery grade lithium hydroxide processing facility in Gwanyang, South Korea. PLS will initially own 18% of the JV and will supply ~315ktpa of spodumene concentrate once fully operational.

The JV with POSCO places Pilbara Minerals at the forefront of the emerging South Korean market by providing exposure to many of the major car manufacturers and lithium chemical and battery producers in the region.

Pilbara Minerals is also investigating "mid-stream" opportunities such as the production of lithium salts and is planning to enter a JV in partnership with Australian technology firm Calix, to build a demonstration plant at site, subject to finalisation of documentation and FID approval from the board.



- Pilbara Minerals is a 100% Australian owned ASX-100-listed, lithium producer with a ~\$16bn market capitalisation.
- Pilgangoora is one of the largest independently owned hard-rock lithium operations globally, producing ~580,000tpa with growth potential to ~1Mtpa, with a 26-year mine life.
- PLS is a well-funded leading producer of spodumene concentrate with \$1.375bn in cash (as at 30 September 2022).



DEREK MARSHALLCEO

TREK METALS

(ASX:TKM)

■ Company Name: Trek Metals

■ Company ASX code: TKM

■ Key Commodities: Lithium, manganese,

base metals

■ Key Personnel: Tony Leibowitz, Chairman

| John Young, Non-Executive Director | Neil

Biddle, Non-Executive Director | Valerie Hodgins,

Non-Executive Director | Derek Marshall, Chief

Executive Officer

■ Locations: Australia

■ Market Cap as of 15/11/22: \$36.39M

■ 52 Week Share Price Range at 15/11/22:

\$0.045 - \$0.145

■ Company Website:

www.trekmetals.com.au

COMPANY PROFILE

Like many of the growing crop of junior explorers angling for a role in the burgeoning battery metals sector, Trek Metals has a package of attractive projects – including the high potential Tambourah lithium project.

However, the company's point of difference among its peers is the strength of its board, which includes Tony Leibowitz, John Young and Neil Biddle – all founding directors of Pilbara Minerals, one of Australia's leading lithium producers.

The highly experienced mining executives are no strangers to picking winning projects given that they first identified and picked up Pilgangoora – now the backbone of Pilbara Minerals' operations – back in 2014.

For the trio to back exploration of the Tambourah lithium project just 70km to the southeast speaks volumes of its potential.

And while historical rock chips had already highlighted the presence of a large, fractionated lithium-caesium-pegmatite swarm, the latest results are a strong indication that they might very well be right on the money once again.

Laboratory assays of rock chip sampling have returned high-grade results across multiple spodumene-bearing pegmatite dykes across the Tambourah tenements.

While rock chip sampling is still a very early stage of exploration, the results – including 3.07% Li²O, 2.69% Li²O and 2.36% Li²O – are a clear sign that Trek might be on to a very prospective greenfields lithium play that has yet to be drill tested.

Chief executive officer Derek Marshall certainly didn't mince his words, noting that the results from the rock chip sampling was "a very exciting breakthrough" that was "about as good as it gets for this stage of exploration".

Current work is focused on defining drill targets within areas with anomalous lithium and other pathfinder elements such as caesium, rubidium and tantalum, which will be followed by a drill rig to get down to the brass tacks.

Trek also has exposure to manganese and base metals, with the former coming out from its acquisition of the Hendeka project which has just been finalised.

Hendeka already has an inferred resource of 11.3Mt grading 15% manganese with immediate drill targets for resource extension and new discoveries.

Plans are afoot for further initial exploration as well as metallurgical testwork to determine the potential to produce manganese sulphide for the battery market.

Trek has also acquired a new tenement from Pilbara Minerals that is immediately adjacent to its Pincunah project, which includes recently identified electromagnetic conductors and surface zinc-copper anomalism.

E45/4640 is prospective for new gold and base metal discoveries and is located close to significant established gold and base metals deposits such as Kairos Minerals' 1.1 million ounce York gold deposit.

With the acquisition now complete, the company plans to proceed with exploration to unlock its potential.



- Trek has a proven board featuring members who cut their teeth transforming Pilbara Minerals into a major lithium producer.
- The Tambourah project is highly prospective with multiple lithium-bearing pegmatite dykes just 70km from Pilgangoora.
- The company is also moving into manganese with the acquisition of the Hendeka project and has exposure to base metal projects.

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